	Application No.	Applicant(s)
Notice of Allowability	10/731,124	FUKUZAWA, KEIICHI
	Examiner	Art Unit
	Mike Rahmjoo	2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to _12/10/03_.

2. ☒ The allowed claim(s) is/are _1,3, 5-10, 21- 24_.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☒ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _5/19/04_

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☒ Other _restriction requirment_.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I.   Claims 1- 10, drawn to image compression or coding, classified in class
382, subclass 232.

II.   Claims 11- 20, drawn to image compression or coding including details of
compression, classified in class 382, subclass 233.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together
in a single combination. The subcombinations are distinct if they do not overlap in
scope and are not obvious variants, and if it is shown that at least one subcombination
is separately usable. In the instant case, subcombination I has separate utility such as
inputting image data. Subcombination II, on the other hand, has another utility such as
inputting encoded image data See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together.
Where applicant elects a subcombination and claims thereto are subsequently found
allowable, any claim(s) depending from or otherwise requiring all the limitations of the
allowable subcombination will be examined for patentability in accordance with 37 CFR
1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a
continuation or divisional application is anticipated by, or includes all the limitations of, a
claim that is allowable in the present application, such claim may be subject to

provisional statutory and/or nonstatutory double patenting rejections over the claims of

the instant application.

Because these inventions are independent or distinct for the reasons given

above and there would be a serious burden on the examiner if restriction is not required

because the inventions have acquired a separate status in the art in view of their

different classification, restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given

above and there would be a serious burden on the examiner if restriction is not required

because the inventions require a different field of search (see MPEP § 808.02),

restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Diperna on 11/08/2007 a provisional

election was made without traverse to prosecute the invention of I, claims 1- 10.

Affirmation of this election must be made by applicant in replying to this Office action.

Claims 11- 20 are withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Mr. Diperna on 11/19/2007.

The application has been amended as follows:

Please cancel claims 2, 4, as well as the withdrawn claims 11- 20; add new

claims 21- 24 and amend claims 1, 3-10 as follows:

Claim 1:

An image processing apparatus comprising:

an input means for inputting image data;

a frequency conversion means for converting the image data into frequency data

in a frequency band;

a data processing means for performing predetermined processing on the

frequency data generated by the frequency conversion means;

an illuminance detection means for detecting illuminance of the image data;

and a changing means for changing the operation of the data processing means

on predetermined frequency data in accordance with an output from the illuminance

detection means;

        wherein the illuminance detection means outputs a first output signal when

detecting that the illuminance of the image data is lower than first illuminance,

        wherein when receiving the first output signal, the changing means changes the

processing for high-frequency band data of the data processing means;

        wherein the data processing means is a multiplication means;

_____ and wherein when receiving the first output signal, the changing means sets a

value smaller than a normal value for multiplication.

Claim 3:

Line 1 before "image" delete "an" and replace it with "the";

line 1 after "claim" delete "2" and replace it with "1";

line 2 after "wherein" delete "the" and replace it with "said";

line 3 after "signal," delete "the" and replace it with "said";

claim 5:

line 1 before "image" delete "an" and replace it with "the";

line 2 after "wherein" delete "the" and replace it with "said";

line 3 after "than" add "a";

line 4 after "signal," delete "the" and replace it with "said";

line 5 after "of" delete "the" and replace it with "said".

Claim 6:

line 1 before "image" delete "an" and replace it with "the";

line 2 after "wherein" delete "the" and replace it with "said";

line 3 after "signal," delete "the" and replace it with "said".

Claim 7:

Please delete Claim 7 and replace it with the following:

An image processing apparatus, comprising:

input means for inputting image data;

frequency conversion means for converting the image data into frequency data in a frequency band;

data processing means for performing predetermined processing on the frequency data generated by said frequency conversion means;

illuminance detection means for detecting illuminance of the image data; and

changing means for changing the operation of said data processing means on predetermined frequency data in accordance with an output from said illuminance detection means,

wherein said illuminance detection means outputs a first output signal when detecting that the illuminance of the image data is lower than a first illuminance,

wherein when receiving the first output signal, said changing means changes the processing for low-frequency band data of said data processing means,

wherein said data processing means is a multiplication means, and

wherein when receiving the first output signal, said changing means sets a value smaller than a normal value for multiplication.

Claim 8:

line 1 before "image" delete "an" and replace it with "the";

line 2 after "wherein" delete "the " and replace it with "said".

Claim 9:

line 1 before "image" delete "an" and replace it with "the";

line 2 after "wherein" delete "the" and replace it with "said".

Claim 10:

line 1 before "image" delete "an" and replace it with "the";

line 2 after "wherein" delete "the" and replace it with "said";

line 3 after "by" delete "the" and replace it with "said".

Please add claims 21- 24;

21. The image processing apparatus according to claim 7,

wherein said data processing means performs one of frequency band division

encoding and wavelet conversion encoding.

22. The image processing apparatus according to claim 7,

wherein said data processing means performs one of discrete cosine conversion

and corrected discrete cosine conversion.

23. The image processing apparatus according to claim 7,

wherein said illuminance detection means detects the illuminance by referring to

low-frequency band data generated as a result of the conversion by said frequency

conversion means.

24. An image processing apparatus according to claim 7,

wherein said data processing means is a quantization means, and

wherein when receiving the first output signal, said changing means changes a

quantization step.

Allowable Subject Matter

Claims 1, 3, 5- 10, 21- 24 are allowed.

The following is an examiner's statement of reasons for allowance:

None of the prior art, either singularly or in combination, fairly teaches or suggests applicant's claimed invention wherein applicant recites "when receiving the first output signal, the changing means sets a value smaller than a normal value for multiplication."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US PAP 2001/ 0021274 teaches an input image data compressor which comprises an image recording controller for generating image information on respective input objects from the input image data, generating image information on a moving object using the image information, comparing the previously input image data

with the presently input image data, generating new image information on the moving
object and compressing the new image information; a storage unit for storing signals or
data generated during compression operation of the image recording controller
in a corresponding established address; and a compressed image storage unit for
storing the compressed image data compressed by the control operation of the
image recording controller.

US PAP 2001/ 0001617 teaches a highly reliable and high-speed data
transmission is made by using an FH or MFSK mode as suitably selected according to
the usage of channels. When a reception signal is entered into a receiver through a
transmission line, (i) a signal processing unit supplies the spectrum intensity values of
carrier frequencies, (ii) a channel detection unit controls the phase of a time slot
based on the spectrum intensity values, selects the MFSK or FH modulation mode,
and supplies reception code data corresponding to detected carrier frequencies,
and (iii) a decoder supplies reception information data based on the reception
code data. When transmission information data are entered into a transmitter,
(i) a coding unit supplies, according to the selected modulation mode,
transmission code data based on the transmission information data, (ii) a
channel generation unit supplies, based on the transmission code data, carrier
frequencies to be used and (iii) a waveform generation unit supplies a
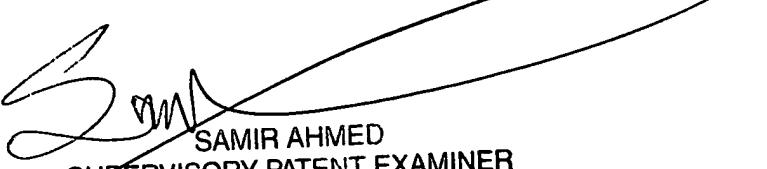transmission signal to a transmission line.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is 571-272-7789. The examiner can normally be reached on 8 AM- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Rahmjoo

November 19, 2007

SAMIR AHMED
SUPERVISORY PATENT EXAMINER